

# Performance Audit of Incurred Costs – West Virginia University Research Corporation

REPORT PREPARED BY WITHUMSMITH+BROWN, PC

NATIONAL SCIENCE FOUNDATION  
OFFICE OF INSPECTOR GENERAL

July 5, 2022  
OIG 22-1-010





## AT A GLANCE

### Performance Audit of Incurred Costs – West Virginia University Research Corporation

Report No. OIG 22-1-010

July 5, 2022

#### AUDIT OBJECTIVE

The National Science Foundation Office of Inspector General engaged WithumSmith+Brown, PC (WSB) to conduct a performance audit of incurred costs at the West Virginia University Research Corporation (WVURC) for the period September 1, 2017, to August 31, 2020. The auditors tested more than \$1.5 million of the approximately \$25.9 million of costs claimed to NSF. The objective of the audit was to determine if costs claimed by WVURC on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements. A full description of the audit's objective, scope, and methodology is attached to the report as Appendix B.

#### AUDIT RESULTS

The report highlights concerns about WVURC's compliance with certain federal and NSF award requirements. The auditors questioned \$43,156 of direct and indirect costs claimed by WVURC during the audit period. Specifically, the auditors found \$17,335 in unallowable purchases near or after award expiration, \$23,018 in unallocable and unreasonable costs, and \$2,803 in unallowable indirect costs. WSB is responsible for the attached report and the conclusions expressed in it. NSF OIG does not express any opinion on the conclusions presented in WSB's audit report.

#### RECOMMENDATIONS

The auditors included three findings in the report with associated recommendations for NSF to ensure WVURC provides documentation that the questioned costs have been repaid or otherwise credited and that WVURC strengthens administrative and management controls.

#### AUDITEE RESPONSE

WVURC agreed with all of the findings in the report. WVURC's response is attached in its entirety to the report as Appendix A.

FOR FURTHER INFORMATION, CONTACT US AT [OIGPUBLICAFFAIRS@NSF.GOV](mailto:OIGPUBLICAFFAIRS@NSF.GOV).



**National Science Foundation • Office of Inspector General**  
2415 Eisenhower Avenue, Alexandria, Virginia 22314

**MEMORANDUM**

**DATE:** July 5, 2022

**TO:** Dale Bell  
Director  
Division of Institution and Award Support

Jamie French  
Director  
Division of Grants and Agreements

**FROM:** [REDACTED]  
for Mark Bell  
Assistant Inspector General  
Office of Audits

**SUBJECT:** Audit Report No. 22-1-010, West Virginia University Research Corporation

This memorandum transmits the WithumSmith+Brown, PC (WSB) report for the audit of costs charged by the West Virginia University Research Corporation (WVURC) to its sponsored agreements with the National Science Foundation during the period September 1, 2017, to August 31, 2020. The audit encompassed more than \$1.5 million of the approximately \$25.9 million claimed to NSF during the period. The objective of the audit was to determine if costs claimed by WVURC on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements. A full description of the audit's objective, scope, and methodology is attached to the report as Appendix B.

Please coordinate with our office during the 6-month resolution period, as specified by OMB Circular A-50, to develop a mutually agreeable resolution of the audit findings. The findings should not be closed until NSF determines that all recommendations have been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

**OIG Oversight of the Audit**

WSB is responsible for the attached auditors' report and the conclusions expressed in this report. We do not express any opinion on the conclusions presented in WSB's audit report. To fulfill our responsibilities, we:

- reviewed WSB’s approach and planning of the audit;
- evaluated the qualifications and independence of the auditors;
- monitored the progress of the audit at key points;
- coordinated periodic meetings with WSB, as necessary, to discuss audit progress, findings, and recommendations;
- reviewed the audit report prepared by WSB; and
- coordinated issuance of the audit report.

We thank your staff for the assistance that was extended to the auditors during this audit. If you have any questions regarding this report, please contact Billy McCain at 703.292.7100 or [OIGpublicaffairs@nsf.gov](mailto:OIGpublicaffairs@nsf.gov).

Attachment

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# **West Virginia University Research Corporation**

**Audit of Incurred Costs**

**National Science Foundation  
Office of Inspector General**

**June 30, 2022**

**OIG 22-1-010**

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## Abbreviations

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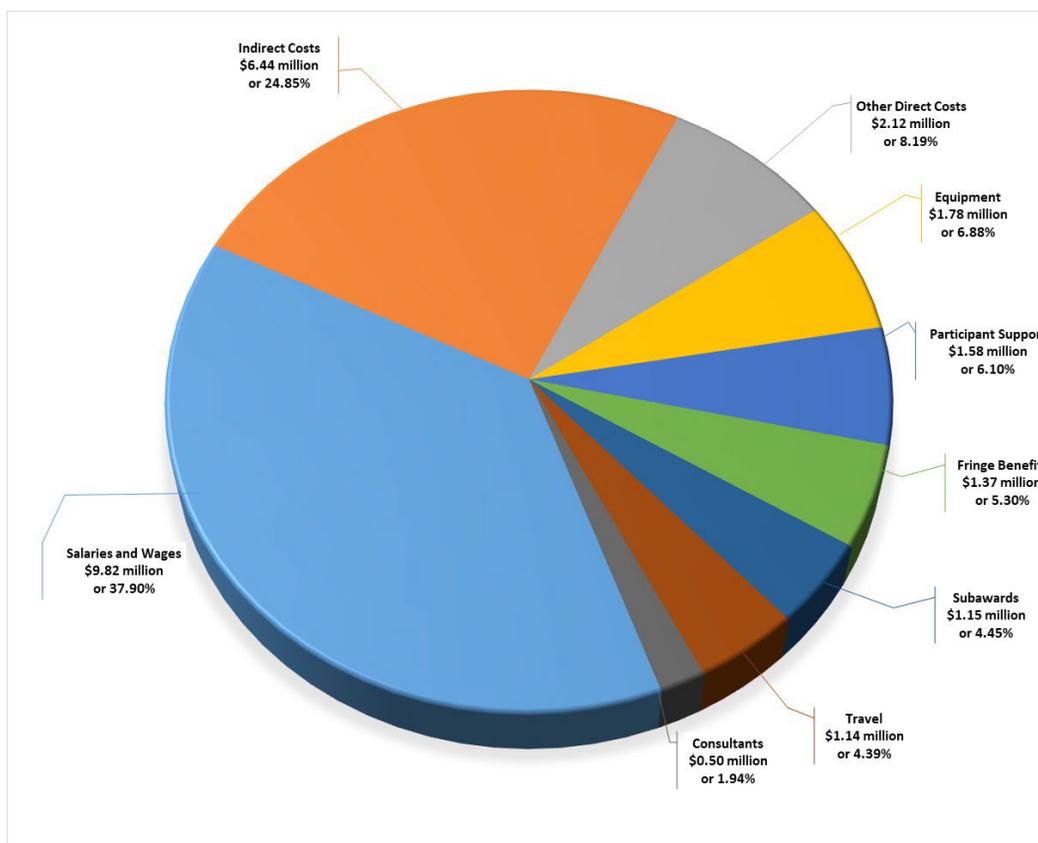
F&A	Facilities and Administrative (costs)
PAPPG	Proposal and Award Policies and Procedures Guide
WVURC	West Virginia University Research Corporation

## Background

The National Science Foundation is an independent federal agency created “to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense; and for other purposes.”<sup>1</sup> NSF is also committed to ensuring an adequate supply of the Nation’s scientists, engineers, and science educators. NSF funds research and education in science and engineering by awarding grants and contracts to educational and research institutions in all parts of the United States.

NSF awardees must follow federal and NSF award regulations and guidance in administering NSF awards. The West Virginia University Research Corporation (WVURC) was created as a not-for-profit corporation to support research at West Virginia University. In that role, the WVURC receives and administers funds awarded by external agencies for research. For FY 2020, the university expended over \$172 million in sponsored awards and federal grants. Between September 1, 2017, and August 31, 2020, WVURC expended approximately \$25.9 million on 160 NSF awards. See Figure 1 for an analysis of these costs by budget category.

**Figure 1. Costs Claimed by NSF Budget Category, September 1, 2017, to August 31, 2020**



Source: Auditor summary of accounting data provided by WVURC

<sup>1</sup> National Science Foundation Act of 1950, Pub. L. No. 81-507

## Results of Audit

NSF OIG engaged Withum (referred to as “we”) to audit the costs claimed by WVURC on NSF awards for the period beginning September 1, 2017 and ending August 31, 2020. In our testing of 292 judgmentally selected transactions, we identified 14 transactions totaling \$43,156 of questioned costs charged to 12 NSF awards. WVURC needs improved oversight in three areas to ensure costs claimed are reasonable, necessary, and in accordance with federal and NSF award requirements. The three areas include: 1) \$17,335 in purchases near or after award expiration; 2) \$23,018 in unallocable and unreasonable costs; and 3) \$2,803 in unallowable indirect costs. See Appendix C for a schedule of questioned costs by finding and award.

### Finding 1: Purchases Near or After Award Expiration

We questioned \$17,335 in materials and supplies, purchased or received, near or after the end of award periods, that were not allowable under federal regulations<sup>2</sup> and NSF Proposal and Award Policies and Procedures Guide (PAPPG).<sup>3</sup> Specifically, we questioned eight transactions charged to seven awards, as shown in Table 1. The purchases do not appear reasonable, necessary, fully allocable, or to provide benefit to the awards charged.

**Table 1. Purchases Received Near or After the Award Expiration**

Description	Award Number	Questioned Invoice	Questioned F&A	Questioned Total	Days Remaining	WVURC Agreed to Reimburse
Computer		\$ 3,986	\$ 1,953	\$ 5,939	32	\$ 5,939
Computer		2,909	1,455	4,364	4	4,364
Various Supplies		2,335	1,086	3,421	12	3,421
Stock Room Charges		958	479	1,437	2	1,437
Apple iPad and Warranty		688	344	1,032	(7)	1,032
Filastruder		569	284	853	0	853
Conference Registration		195	94	289	(103)	289
<b>Total</b>		<b>\$ 11,640</b>	<b>\$ 5,695</b>	<b>\$ 17,335</b>		<b>\$ 17,335</b>

Source: Auditor analysis of questioned transactions

<sup>2</sup> According to 2 CFR Part 220, Appendix A, §C.2 and C.3, costs must be reasonable and allocable. A reasonable cost is necessary and reflects the action that a prudent person would have taken under the circumstances prevailing when the cost was incurred. Additionally, according to 2 CFR §200.405(a) and 2 CFR Part 220, Appendix A, §C.4, a cost is allocable if cost was chargeable or assignable in accordance with relative benefits received. According to 2 CFR §200.403(a), a cost must be necessary, reasonable and allocable to be allowable under a federal award.

<sup>3</sup> According to NSF PAPPG 15-1 and 16-1, Part II, Chapter V.A.2.c, grantees should not purchase items in anticipation of grant expiration where there is little or no time left for the items to be utilized in the actual conduct of the research. Additionally, per NSF PAPPGs 10-1 and 14-1, Part II, Chapter V.B.3, materials and supplies are items that are necessary to carry out the project.

The questioned items include:

- Computer – \$5,939 on NSF Award No. [REDACTED] for the purchase of a computer, that was received on July 30, 2020, on an award that expired August 31, 2020. The computer was available for 2 percent of the award period (32 out of 1,583 days). Given the limited time remaining, this charge does not reflect the relative benefit received by the award.
- Computer – \$4,364 on NSF Award No. [REDACTED] for the purchase of an iMac, that was received on June 26, 2020, on an award that expired June 30, 2020. The computer was available for less than 1 percent of the award period (4 out of 1,429 days). Given the limited time remaining, this charge does not appropriately reflect the relative benefit received by the award.
- Various supplies – \$3,421 on NSF Award No. [REDACTED] for the purchase of various supplies, including copy paper, Post-It easel pads, ink toner, markers, notepads, pens, etc., on September 18, 2018, on an NSF award that expired on September 30, 2018. Per WVURC, the items were used during meetings throughout the Fall 2018. However, the award expired on September 30, 2018, and therefore, the charge does not appropriately reflect the relative benefits received.
- Stock room charges – \$1,437 on NSF Award No. [REDACTED] for stock room charges. The usage report provided by WVURC shows stock room charges on June 28, 2019, and July 2, 2019. The award expired on June 30, 2019. The supply charges on July 2, 2019, occurred after the award expiration and therefore could not benefit this award. The supply charges on July 28, 2019, were available for 2 days prior to the award expiration and appear to be restock supplies, and therefore we're questioning the entire amount.
- Apple iPad and warranty – \$1,032 on NSF Award No. [REDACTED] for the purchase of Apple iPad and warranty coverage that was received on August 7, 2020, on an award that expired on July 31, 2020. The Apple iPad was received after the award expiration, and therefore, could not benefit this award.
- Filastruder – \$853 on NSF Award No. [REDACTED] for the purchase of a Filastruder on June 30, 2019, the same day as the NSF award expiration. The Filastruder was received after the award expiration and therefore could not benefit this award.
- Conference registration - \$289 on NSF Award No. [REDACTED] for registration fees for a conference that occurred on August 11, 2019. The conference occurred 103 days after the NSF award expiration on April 30, 2019, and therefore could not benefit this award.

WVURC personnel did not adequately review these questioned expenditures, which resulted in unreasonable costs. Enhanced oversight procedures and controls should be adopted to review expenditures charged near or after the end of the award period. Having improved oversight processes ensures costs are reasonable and allowable, thus reducing the risk that funds may not be used as required to accomplish the necessary project objectives in accordance with federal and NSF PAPPG requirements. WVURC concurred with the \$17,335 of questioned costs, as illustrated in Table 1.

### Recommendations

We recommend that NSF’s Director of the Division of Institution and Award Support:

1. Direct WVURC to provide documentation supporting that it has repaid or otherwise credited the \$17,335 of questioned costs for purchases near or after award expiration for which it has agreed to reimburse NSF.
2. Direct WVURC to strengthen the administrative and management controls, training, processes, and procedures over expenditures near the end of an award. Processes could include requiring WVURC to review all materials/supplies purchased during the final 90 days of an award’s period of performance to evaluate whether the costs are allocable in accordance with all relevant federal and sponsor-specific regulations before charging the expenses to a sponsored project.

### Summary of Awardee Response

WVURC agreed with this finding. See Appendix A for the complete WVURC response.

### Auditor’s Additional Comments

WVURC’s comments are responsive to this finding. Once NSF determines that the recommendations have been adequately addressed and the \$17,335 in questioned costs have been resolved, this finding should be closed.

## Finding 2: Unallocable and Unreasonable Costs

We questioned five transactions, charged to four awards, totaling \$23,018, for various unallocable or unreasonable purchases and travel expenditures.<sup>4</sup> These purchases do not appear reasonable, necessary, fully allocable, or to provide benefit to the awards charged, as shown in Table 2.

**Table 2. Summary of Unallocable and Unreasonable Costs**

Description	Award Number	Questioned Invoice	Questioned F&A	Questioned Total	WVURC Agreed to Reimburse
Liquid Helium Recovery System		\$ 7,100	\$ 3,550	\$ 10,650	\$ 10,650
Publication Fee		5,200	2,600	7,800	7,800
Travel to [REDACTED]		2,837	1,419	4,256	4,256
Apple AirPods		159	76	235	235

<sup>4</sup> According to 2 CFR Part 220, Appendix A, §C.2 and C.3, costs must be reasonable and allocable. A reasonable cost is necessary and reflects the action that a prudent person would have taken under the circumstances prevailing when the cost was incurred. Additionally, according to 2 CFR §200.405(a) and 2 CFR Part 220, Appendix A, §C.4, a cost is allocable if cost was chargeable or assignable in accordance with relative benefits received. According to 2 CFR §200.403(a), a cost must be necessary, reasonable and allocable to be allowable under a federal award.

Description	Award Number	Questioned Invoice	Questioned F&A	Questioned Total	WVURC Agreed to Reimburse
Meal	██████████	52	25	77	77
<b>Total</b>		<b>\$ 15,348</b>	<b>\$ 7,670</b>	<b>\$ 23,018</b>	<b>\$ 23,018</b>

Source: Auditor analysis of questioned transactions

Specifically, we questioned:

- Liquid helium recovery system – \$10,650 on Award No. ██████████ for a liquid helium recovery system. Per WVURC, the cost of the system should have been allocated to multiple awards but was inadvertently charged to a single award. WVURC did not provide support for the portion of the cost that was allocable to the NSF award, so the entire amount is questioned.
- Publication fee – \$7,800 on NSF Award No. ██████████ for publication fees that were charged to the award in error.
- Travel to ██████████ – \$4,256 on NSF Award No. ██████████ for travel to ██████████ from November 6-11, 2016, to attend a conference. At the time the travel occurred, the assigned grantee was the University ██████████. The award was not transferred to WVURC until March 2017. Per WVURC, the award was charged in error and the cost should have been allocated to a different grant.
- Apple AirPods – \$235 on NSF Award No. ██████████ for Apple AirPods. Per WVURC, the AirPods were useful for listening to webinars, the knowledge of which was utilized in the NSF project. However, the AirPods were not used exclusively on the NSF award. Per WVURC, they were used for general work to conduct online meetings and listen to webinars on various devices. We questioned the purchase of Apple AirPods, as it was not prudent, necessary, allocable, or reasonable.
- Meal – \$77 on NSF Award No. ██████████ for the purchase of pizza and appetizers for a meeting between Graduate Student Fellows.<sup>5</sup>

WVURC personnel did not adequately review these expenditures, which resulted in unallocable and unreasonable costs charged to the awards. Enhanced oversight procedures and controls should be adopted to review expenditures charged to the awards. Having improved oversight processes ensures costs are reasonable and allowable, thus reducing the risk that funds may not be used as required to accomplish the project objectives in accordance with federal regulations and NSF PAPPG requirements.<sup>6</sup> WVURC concurred with the \$23,018 questioned costs, as illustrated in Table 2.

<sup>5</sup> According to NSF Grant Proposal Guide 15-1, Part I, Chapter II, Section C.2, g(xii)(b), no funds may be requested for meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

<sup>6</sup> According to NSF PAPPGs 14-1, 15-1 and 16-1, Part II, Chapter II Section A.1, and 17-1, Part II, Chapter X Section A, grantees are responsible for ensuring that all costs charged to NSF awards meet the requirements of the applicable cost principles, grant terms and conditions, and requirements of the award terms and conditions and the applicable program solicitation.

### ***Recommendations***

We recommend that NSF’s Director of the Division of Institution and Award Support:

1. Direct WVURC to provide documentation supporting that it has repaid or otherwise credited the \$23,018 of questioned unallocable and unreasonable costs for which it has agreed to reimburse NSF.
2. Direct WVURC to strengthen the administrative and management controls, training, processes, and review procedures for the NSF award expenditures.

### ***Summary of Awardee Response***

WVURC agreed with this finding. See Appendix A for the complete WVURC response.

### ***Auditor’s Additional Comments***

WVURC’s comments are responsive to this finding. Once NSF determines that the recommendations have been adequately addressed and the \$23,018 in questioned costs have been resolved, this finding should be closed.

## **Finding 3: Unallowable Indirect Costs**

We questioned \$2,803 in indirect costs for the improper allocation of Facilities & Administrative (F&A) costs.

### **Improper Allocation of F&A Costs**

F&A costs totaling \$2,803 were charged to one NSF award in relation to the purchase of equipment. WVURC purchased a microcentrifuge costing \$5,607, that was recorded as materials and supplies. Per WVURC, the property management team was told that the purchase included two separate items that did not meet the capitalization threshold, so the purchase was recorded as a general expense.

Upon investigation, the property management team determined that the purchase of the microcentrifuge was a stand-alone capitalizable asset with an associated useful life; therefore, the purchase should have been classified as equipment and not been charged associated F&A costs.<sup>7</sup> Indirect costs are to be distributed based on modified total direct costs, from which equipment and capital expenditures are excluded.<sup>8</sup>

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<sup>7</sup> 2 CFR Part 220, Appendix A, J.18.b(5), Equipment and other capital expenditures are unallowable as indirect costs.

<sup>8</sup> Per WVURC’s negotiated indirect cost rate agreement dated 09/13/2013, “Modified total direct costs shall exclude equipment, capital expenditures...”

**Table 3. Description of Questioned Transaction Due to Improper Allocation of F&A Costs**

Description	Award Number	Equipment Amount	Questioned F&A	Questioned Total	WVURC Agreed to Reimburse
Microcentrifuge	[REDACTED]	\$ --	\$ 2,803	\$ 2,803	\$ 2,803

Source: Auditor analysis of questioned transactions

WVURC personnel incorrectly recorded the transaction as materials and supplies, and therefore, the purchase was assessed indirect costs. Without an effective process in place to ensure equipment is properly coded and excluded from modified total direct costs, there is increased risk that funds may not be spent in accordance with federal requirements.

WVURC coded the purchase as a direct charge to material and supplies for the award and then allocated indirect costs to an item that should have been excluded. The purchase did not comply with 2 CFR Part 220 in ensuring that indirect costs are not charged directly to a federal award. WVURC concurred with the \$2,803 in questioned costs.

**Recommendations**

We recommend that NSF’s Director of the Division of Institution and Award Support:

1. Direct WVURC to provide documentation supporting that it has repaid or otherwise credited the \$2,803 of questioned facilities and administrative costs for which it has agreed to reimburse NSF.
2. Direct WVURC to strengthen the administrative and management controls, training, processes, and review procedures over charging indirect costs on equipment purchases.

**Summary of Awardee Response**

WVURC agreed with this finding. See Appendix A for the complete WVURC response.

**Auditor’s Additional Comments**

WVURC’s comments are responsive to this finding. Once NSF determines that the recommendations have been adequately addressed and the \$2,803 in questioned costs have been resolved, this finding should be closed.



June 30, 2022

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## Appendix A: Awardee Response

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June 14, 2022

National Science Foundation  
Office of the Inspector General  
2415 Eisenhower Avenue  
Alexandria, Virginia 22314

On behalf of West Virginia University, we appreciate the opportunity to work with the National Science Foundation (NSF), Office of the Inspector General and Withum Smith+Brown, PC to examine our internal controls and sponsored programs accounting practices, policies, and procedures. The University takes the obligation to administer sponsored award funding in compliance with all applicable laws, regulations, policies, and requirements very seriously.

We have thoroughly reviewed the auditors' findings and recommendations and we welcome the guidance and opportunity to strengthen our sponsored programs procedures. Thank you for the opportunity to include perspective on the draft audit report and we look forward to working with NSF in the resolution process.

Please find below our management response to the questioned costs identified in the discussion draft report. If you have any questions, please do not hesitate to contact us.

Sincerely,

  
\_\_\_\_\_  
Anjali B. Halabe  
Senior Associate Vice President for Finance,  
West Virginia University  
Treasurer,  
WVU Research Corporation

  
\_\_\_\_\_  
Katie R. Stores  
Assistant Vice President for Strategy and Research,  
West Virginia University

## Finding 1: Purchases Near or After Award Expiration

Withum questioned \$17,335 in materials and supplies, purchased, or received, near or after the end of award periods, that were not allowable under federal regulations and NSF Proposal and Award Policies and Procedures Guide (PAPPG). Specifically, Withum questioned eight transactions charged to seven awards, as shown in Table 1 of the draft audit report. The purchases do not appear reasonable, necessary, fully allocable, or to provide benefit to the awards charged.

### WVURC Response

WVURC concurs with the findings and recommendations. WVURC has internal controls in place that reasonably assure that expenses charged to sponsored awards are allowable, allocable, reasonable, and necessary. Our controls also ensure that costs are allowable based on sponsor regulations and WVURC policies. Several areas identified during this audit will be evaluated, improved and necessary training will be provided. Specific responses to the finding(s) for each award are as follows:

NSF Award Number	Questioned Costs	WVURC Response
██████████	\$5,939	WVURC concurs with the finding. WVURC will educate departments on the importance of reviewing purchase requests for allocability specifically in the final 90 days of an award.
██████████	\$4,364	WVURC concurs with the finding. WVURC will educate departments on the importance of reviewing purchase requests for allocability specifically in the final 90 days of an award.
██████████	\$3,421	WVURC concurs with the finding. WVURC will educate departments on the importance of reviewing purchase requests for allocability specifically in the final 90 days of an award.
██████████	\$1,437	WVURC believes that these charges were allocable and necessary to the award. However, the lab materials/supplies that were charged to the award did not have adequate support to fully explain when they were utilized for the award. WVURC concurs with the finding and will educate departments on the importance of reviewing purchase requests for allocability and retaining support documentation.
██████████	\$1,032	WVURC concurs with the finding. WVURC will educate departments on the importance of reviewing purchase requests for allocability specifically in the final 90 days of an award.
██████████	\$853	WVURC concurs with the finding. WVURC will educate departments on the importance of reviewing purchase requests for allocability specifically in the final 90 days of an award.

	\$289	WWURC concurs with the finding. WWURC will educate departments on the importance of reviewing purchase requests for allocability specifically in the final 90 days of an award.
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## Finding 2: Unallocable and Unreasonable Costs

Withum questioned five transactions, charged to four awards, totaling \$23,018, for various unallocable or unreasonable purchases and travel expenditures. Withum stated that these purchases do not appear reasonable, necessary, fully allocable, or provide benefit to the awards charged, as shown in Table 2 of the draft audit report.

### WWURC Response

WWURC concurs with these findings and recommendations. WWURC understands the importance of reviewing expenditures to ensure costs are reasonable, allowable, and allocable. WWURC will work to train employees on existing policies and enhance internal controls as needed to strengthen oversight related to reasonable, allowable, and allocable costs. Specific responses to the finding(s) for each award are as follows:

NSF Award Number	Questioned Costs	WWURC Response
	\$10,650	WWURC concurs with the finding. The liquid helium recovery system was partially allocable to this award, but the cost should have been allocated to multiple awards based on the anticipated usage/benefit received. WWURC will work to train employees on existing policies and enhance internal controls as needed to strengthen oversight related to reasonable, allowable, and allocable costs. WWURC will educate departments on the importance of reviewing purchase requests for allocability, specifically for equipment that will not be used exclusively on the award of purchase.
	\$7,800	WWURC concurs with the finding and this expense has been moved from the award. WWURC will work to train employees on existing policies and enhance internal controls as needed to strengthen oversight related to reasonable, allowable, and allocable costs.
	\$4,256	WWURC concurs with the finding. WWURC will work to train employees on existing policies and enhance internal controls as needed to strengthen oversight related to reasonable, allowable, and allocable costs.
	\$235	WWURC concurs with the finding. WWURC will work to train employees on existing policies and enhance internal controls as needed to strengthen oversight related to reasonable, allowable, and allocable costs.

[REDACTED]	\$77	WWURC concurs with the finding. WWURC will work to train employees on existing policies and enhance internal controls as needed to strengthen oversight related to reasonable, allowable, and allocable costs.
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### Finding 3: Unallowable Indirect Costs

Withum questioned \$2,803 in indirect costs for the improper allocation of Facilities & Administrative (F&A) costs.

#### WWURC Response

WWURC concurs with this finding and recommendation for the \$2,803 of unallowable indirect costs on Award [REDACTED]. WWURC will train employees/departments on the importance of correctly coding equipment purchases to comply with the University's Capitalization of Assets policy so that F&A is correctly treated per the established and effective controls within the indirect cost burdening process in the WWURC financial system.

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## Appendix B: Objective, Scope, Methodology, and Criteria

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### *Objective*

To determine if costs claimed by WVURC on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements.

### *Scope*

Our audit included assessing the allowability, allocability, and reasonableness of costs claimed by WVURC through the Award Cash Management Service for the 3-year period beginning September 1, 2017 and ending August 31, 2020.

The audit was conducted in two phases: an Audit Survey Phase and an Incurred Cost Audit Phase. The audit work was conducted at the auditor's offices. The Audit Survey fieldwork was conducted in October 2020 and the Incurred Cost fieldwork continued in August 2021.

WVURC management is responsible for establishing and maintaining effective internal control to help ensure that federal award funds are used in compliance with laws, regulations, and award terms. In planning and performing our audit, we considered WVURC's internal control solely to understand the policies and procedures relevant to the financial reporting and administration of NSF awards. We also evaluated WVURC's compliance with laws, regulations, and award terms applicable to the items selected for testing, but not to express an opinion on the effectiveness of WVURC's internal control over award financial reporting and administration. Accordingly, we do not express an opinion on the effectiveness of WVURC's internal control over its award financial reporting and administration.

We conducted this performance audit in accordance with *Generally Accepted Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the conclusions based on the audit objective. We believe that the evidence obtained provides a reasonable basis for our conclusions based on the audit objective.

### *Methodology*

We conducted the audit in two phases: an Audit Survey Phase and an Incurred Cost Audit Phase. The Audit Survey Phase was conducted as follows:

- WVURC provided detailed transaction data for all costs charged to NSF awards for the period September 1, 2017, through August 31, 2020. This provided an audit universe of \$25,923,103 with more than 52,000 transactions, across 160 individual NSF awards.
- We assessed the reliability of the data provided by WVURC by 1) comparing costs charged to NSF award accounts within WVURC's accounting records to reported net expenditures,

as reflected in WVURC's financial reports submitted to NSF for the corresponding periods; 2) performing general ledger to sub-ledger reconciliations of accounting data; and 3) reviewing and testing the parameters WVURC used to extract transaction data from its accounting records and systems. Based on our testing, we found WVURC's computer-processed data sufficiently reliable for the purposes of this audit.

- We conducted walkthroughs and interviews to gain a detailed understanding of WVURC's systems, processes, policies, and procedures.
- We obtained and reviewed available accounting and administration policies and procedures, relevant documented management initiatives, previously issued external audit reports and desk review reports, and schedules and reconciliations prepared by WVURC. We verified these documents against supporting accounting records. To ensure that the internal controls were properly designed to detect, deter, and prevent fraud, errors, and irregularities, we judgmentally selected a sample of 42 transactions designed to test various internal controls. We tested these transactions to assess internal controls, applicable policies and procedures, and compliance with federal regulations, NSF PAPPG's and the award terms.
- At the conclusion of our fieldwork, we provided a summary of our results and recommendations to NSF OIG personnel for review and approval.

Based on the issues identified during the Survey Phase, we determined that an additional Incurred Cost Audit phase was warranted. The Incurred Cost Phase was conducted as follows:

- We judgmentally selected 250 transactions, totaling more than \$1.5 million based on issues identified in the Survey Phase.
- Selected transactions were provided to WVURC with a request for supporting documentation for each transaction.
- We conducted the following additional audit work: 1) pursued general ledger ACM\$ reconciliation issues; 2) ensured participant support costs were fully expended, and if not, that WVURC received prior approval as necessary; and 3) obtained additional information on cost share.
- We reviewed the supporting documentation provided by WVURC and evaluated the allowability, allocability, and reasonableness of each transaction.
- When necessary, we requested additional supporting documentation.
- We also obtained explanations and justifications from knowledgeable personnel until we had sufficient support to assess the allowability, allocability, and reasonableness of each transaction.

At the conclusion of our fieldwork, we provided a summary of our results to NSF OIG personnel for review. We also provided the summary of results to WVURC personnel to ensure that they were aware of each of our findings and did not have any additional documentation to support the questioned costs.

Our work required us to rely on the computer-processed data obtained from WVURC and NSF OIG. We assessed NSF's computer-processed data and found it to be sufficiently reliable for the

purposes of this audit. We did not review or test whether the data contained in, or controls over, NSF's databases were accurate or reliable; however, the independent auditor's report on NSF's financial statements for fiscal years 2017, 2018, 2019 and 2020 found no reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.

### *Criteria*

We assessed WVURC's compliance with its internal policies and procedures, as well as the following:

- 2 CFR Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*
- 2 CFR Part 220, *Cost Principles for Educational Institutions* (Office of Management and Budget Circular A-21)
- 2 CFR Part 215, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations* (Office of Management and Budget Circular A-110)
- *NSF Proposal and Award Policies and Procedures Guide* (includes the *Grant Proposal Guide* and *Award and Administration Guide*)
- NSF Award Specific Terms and Conditions

## Appendix C: Questioned Costs Summary by Award

Award Number	Direct Costs Questioned	Fringe Benefits Questioned	Indirect Costs Questioned	Total Questioned	Total Unsupported
<b>Finding 1: Purchases Near or After Award Expiration</b>					
	\$ 3,986	\$ --	\$ 1,953	\$ 5,939	\$ --
	2,909	--	1,455	4,364	--
	2,335	--	1,086	3,421	--
	958	--	479	1,437	--
	688	--	344	1,032	--
	569	--	284	853	--
	195	--	94	289	--
<b>Finding 1 Total</b>	<b>11,640</b>	<b>--</b>	<b>5,695</b>	<b>17,335</b>	<b>--</b>
<b>Finding 2: Unallocable and Unreasonable Costs</b>					
	7,100	--	3,550	10,650	--
	5,200	--	2,600	7,800	--
	2,837	--	1,419	4,256	--
	159	--	76	235	--
	52	--	25	77	--
<b>Finding 2 Total</b>	<b>15,348</b>	<b>--</b>	<b>7,670</b>	<b>23,018</b>	<b>--</b>
<b>Finding 3: Unallowable Indirect Costs</b>					
	--	--	2,803	2,803	--
<b>Finding 3 Total</b>	<b>\$ --</b>	<b>\$ --</b>	<b>\$ 2,803</b>	<b>\$ 2,803</b>	<b>\$ --</b>



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